SEQUENCE LISTING

<110> Mattiasson, Bo
Csoregi, Elisabeth
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Berggren, Christine
Brown, Nigel
Lloyd, Jonathan
Jakeman, Kenneth
Hobman, Jonathan
Wilson, Jonathan
Van Der Leile, Daniel
Corbisier, Philippe

<120> METAL ION SPECIFIC CAPACITY SENSOR

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<140> US 09/508,775
<141> 2000-10-25

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<170> FastSEQ for Windows Version 4.0

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<211> 289
<212> PRT
<213> Synechococcus sp.

<400> 1

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 1               5                  10                  15
Thr Arg Leu Leu Leu Glu Tyr Leu Glu Glu Lys Tyr Glu Glu His Leu
            20                  25                  30
Tyr Glu Arg Asp Glu Gly Asp Lys Trp Arg Asn Lys Lys Phe Glu Leu
        35                  40                  45
Gly Leu Glu Phe Pro Asn Leu Pro Tyr Tyr Ile Asp Gly Asp Val Lys
    50                  55                  60
Leu Thr Gln Ser Met Ala Ile Ile Arg Tyr Ile Ala Asp Lys His Asn
65                  70                  75                  80
Met Leu Gly Gly Cys Pro Lys Glu Arg Ala Glu Ile Ser Met Leu Glu
                85                  90                  95
Gly Ala Val Leu Asp Ile Arg Tyr Gly Val Ser Arg Ile Ala Tyr Ser
            100                 105                 110
Lys Asp Phe Glu Thr Leu Lys Val Asp Phe Leu Ser Lys Leu Pro Glu
        115                 120                 125
Met Leu Lys Met Phe Glu Asp Arg Leu Cys His Lys Thr Tyr Leu Asn
    130                 135                 140
Gly Asp His Val Thr His Pro Asp Phe Met Leu Tyr Asp Ala Leu Asp
```

```
145                 150                 155                 160
Val Val Leu Tyr Met Asp Pro Met Cys Leu Asp Ala Phe Pro Lys Leu
                165                 170                 175
Val Cys Phe Lys Lys Arg Ile Glu Ala Ile Pro Gln Ile Asp Lys Tyr
            180                 185                 190
Leu Lys Ser Ser Lys Tyr Ile Ala Trp Pro Leu Gln Gly Trp Gln Ala
        195                 200                 205
Thr Phe Gly Gly Gly Asp His Pro Pro Lys Ser Asp Leu Ile Glu Gly
    210                 215                 220
Arg Gly Ile Pro Met Thr Ser Thr Thr Leu Val Lys Cys Ala Cys Glu
225                 230                 235                 240
Pro Cys Leu Cys Asn Val Asp Pro Ser Lys Ala Ile Asp Arg Asn Gly
                245                 250                 255
Leu Tyr Tyr Cys Ser Glu Ala Cys Ala Asp Gly His Thr Gly Gly Ser
            260                 265                 270
Lys Gly Cys Gly His Thr Gly Cys Asn Cys Ser Glu Phe Ile Val Thr
        275                 280                 285
Asp
```

<210> 2
<211> 144
<212> PRT
<213> Pseudomonas aeruginosa

<400> 2

```
Met Glu Asn Asn Leu Glu Asn Leu Thr Ile Gly Val Phe Ala Lys Ala
 1               5                  10                  15
Ala Gly Val Asn Val Glu Thr Ile Arg Phe Tyr Gln Arg Lys Gly Leu
            20                  25                  30
Leu Leu Glu Pro Asp Lys Pro Tyr Gly Ser Ile Arg Arg Tyr Gly Glu
        35                  40                  45
Ala Asp Val Thr Arg Val Arg Phe Val Lys Ser Ala Gln Arg Leu Gly
    50                  55                  60
Phe Ser Leu Asp Glu Ile Ala Glu Leu Leu Arg Leu Glu Asp Gly Thr
65                  70                  75                  80
His Cys Glu Glu Ala Ser Ser Leu Ala Glu His Lys Leu Lys Asp Val
                85                  90                  95
Arg Glu Lys Met Ala Asp Leu Ala Arg Met Glu Ala Val Leu Ser Glu
            100                 105                 110
Leu Val Cys Ala Cys His Ala Arg Arg Gly Asn Val Ser Cys Pro Leu
        115                 120                 125
Ile Ala Ser Leu Gln Gly Gly Ala Ser Leu Ala Gly Ser Ala Met Pro
    130                 135                 140
```

<210> 3
<211> 145
<212> PRT
<213> Alcaligenes eutrophus

<400> 3

```
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 1               5                  10                  15
Val Thr Ile Arg Phe Tyr Glu Gln Glu Gly Leu Leu Pro Pro Pro Gly
```

```
            20                  25                  30
Arg Ser Arg Gly Asn Phe Arg Leu Tyr Gly Glu Glu His Val Glu Arg
        35                  40                  45
Leu Gln Phe Ile Arg His Cys Arg Ser Leu Asp Met Pro Leu Ser Asp
    50                  55                  60
Val Arg Thr Leu Leu Ser Tyr Arg Lys Arg Pro Asp Gln Asp Cys Gly
65                  70                  75                  80
Glu Val Asn Met Leu Leu Asp Glu His Ile Arg Gln Val Glu Ser Arg
                85                  90                  95
Ile Gly Ala Leu Leu Glu Leu Lys His His Leu Val Glu Leu Arg Glu
            100                 105                 110
Ala Cys Ser Gly Ala Arg Pro Ala Gln Ser Cys Gly Ile Leu Gln Gly
        115                 120                 125
Leu Ser Asp Cys Val Cys Asp Thr Arg Gly Thr Thr Ala His Pro Ser
    130                 135                 140
Asp
145
```

<210> 4
<211> 72
<212> PRT
<213> Pseudomonas aeruginosa

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Ala Thr Gln Thr Val Thr Leu Ser Val Pro Gly Met Thr Cys Ser Ala
 1               5                  10                  15
Cys Pro Ile Thr Val Lys Lys Ala Ile Ser Glu Val Glu Gly Val Ser
            20                  25                  30
Lys Val Asp Val Thr Phe Glu Thr Arg Gln Ala Val Val Thr Phe Asp
        35                  40                  45
Asp Ala Lys Thr Ser Val Gln Lys Leu Thr Lys Ala Thr Ala Asp Ala
    50                  55                  60
Gly Tyr Pro Ser Ser Val Lys Gln
65                  70
```